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ABSTRACT

Classroom based research investigating the actual context of reading requires examination of the texts chosen, the purposes for which they are to be read, the strategies to be used in actually reading them, and, finally, the outcomes expected from reading them. Among the studies that have pioneered research of this kind are (1) those directed by E. Lunzer and K. Gardner, whose investigations have ranged from detailed studies of the readability of texts used in different subject areas to the nature and incidence of reading in the classroom and reading for home study to the use of reading in conjunction with various learning activities; (2) the survey carried out in association with the work of the Bullock Committee in England, which attempted to provide a clear picture of the nature of reading activities in the classroom as part of their examination of the English curriculum; and (3) the study conducted by D. Durkin, which was concerned with the kind of teacher assistance students received for reading comprehension. Adding to this body of literature is a more recent study that surveyed the teachers' use of extended reading assignments for three classes of first year secondary school students in Northern Ireland. Results of this study indicated that teachers chose texts of a level of readability below the average reading ability of the students concerned, that the texts met some of the important criteria by which they could be judged, that reading assignments were mostly intended as opportunities for elaborating on or reviewing class work, and that answering questions was the activity most frequently associated with the reading assignments. (HOD)

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Reading Assignments across the Curriculum

Paper presented to the Ninth World Congress
of the International Reading Association
26-30 July 1982.

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PART I

Introduction.

A welcome development in reading research over the past few years has been the growing interest in studying the actual use of reading within the classroom. This development is welcome as a necessary counter on the one hand to the subjective prescriptivism which has acquired far too much space in the literature and on the other to the claims of research conducted under laboratory type conditions. The kind of studies I have in mind is the consequence of the increasing involvement by educationists, in particular practising teachers, in reading research and of the growing interest within educational research itself in the study of what is going on in real classrooms as opposed to some more idealised settings.

The need for classroom based research which investigates the actual context of reading must be obvious. The issues involved are those which arise from considering reading within the context of the different curricular activities students are required to undertake. More specifically these issues include a consideration of reading as part of the whole learning process which is structured through the school curriculum. It requires examination of the texts chosen, the purposes for which they are to be read, the strategies to be used in actually reading them and finally the outcomes expected from reading them.

Among the studies which have been pioneering research of this kind are those directed by Lunzer and Gardner (1979) in Britain, the survey carried out in association with the work of the Bullock Committee (1975), also in Britain and Durkin's (1979) Chicago study.

The Lunzer and Gardner studies are the most comprehensive since they include a number of linked investigations, under the general heading of 'effective uses of reading', carried out in secondary schools. Ranging from detailed studies of the readability of texts used in different subject areas to the nature and incidence of reading in the classroom and reading for home study to the use of reading in conjunction with various learning activities, these studies provide a very comprehensive base-line for further research of this kind. Indeed the research to be reported in this paper owes much to the Lunzer and Gardner studies to which a number of important references will be made.

The survey conducted for the Bullock report is mentioned because it too attempted to provide a clear picture of the nature of reading activities in the classroom. However since by its brief the committee was restricted to examining the English curriculum the survey's findings can only have direct relevance to reading within that one area though, of course, worthwhile implications can also be drawn for other areas as well.

Durkin's study which is specifically concerned with the kind of assistance students receive in order that they should comprehend what they read is important because of the light it throws on the teacher's role as 'director of learning' as opposed to 'dispenser of information', etc., and particularly on the teacher's approach to the use of texts in the learning process.

In this paper a number of the issues raised, in particular by the Lunzer and Gardner studies and by Durkin, are examined in the light of the results of a small scale study directed by the author.

Issues Investigated

The issues investigated here are (i) the readability of texts across the curriculum taking account of the measured reading ability of the students, (ii) the declared purposes or aims for which those texts were to be read, (iii) the nature of any activities or tasks associated with the reading assignments, (iv) the nature of the assistance, if any, which teachers provided pupils in order to carry out these reading tasks.

These issues were singled out for investigation because they highlight a number of fundamental questions which need continued investigation if effective pedagogical guidelines are to be devised.

Readability

Investigating readability yet again may raise some eyebrows given the many questions posed by the difficulties in constructing effective measuring instruments. However, the concept of readability is still a valid one and while more effective measures are still being sought those that exist at least provide a crude check to enable helpful comparisons between texts to be made and, in the context of this discussion, to provide some objective assessment of teacher and students' impressions of the ease and difficulty of texts. Whatever difficulties may lie in the way of determining

readability, however, the need for teachers to take some account of the level of difficulty of texts whether real in some measurable sense, or perceived in some subjective sense will always exist and will, therefore, need to be taken at least note of by investigators.

The Lunzer and Gardner studies of readability reveal a tendency discovered in other studies, Klare (1963) and Gibbons (1980), for texts in some areas of the curriculum, notably in social studies and science, to record measures suggesting that they may be particularly difficult. The findings, their study claims,

Give firm evidence that many students, perhaps even most students, learn less than they might otherwise do from school texts, and this is because of the way in which they are written. (p.101)

Such a strong claim clearly underlines the need to continuously attend to the question of readability. It also suggests to us the need to explore more deeply than current measures allow what factors need to be taken into account in assessing textual ease and difficulty. The actual structure of the discourse is an obvious feature to investigate. As Meyer (1975) points out the U.S. National Assessment of Reading found that while many poor readers could read words and phrases, making sense of texts in their totality posed serious problems in numerous cases.

While the survey reported in this paper was not concerned with student performance on the reading assignments, it does report a number of general features of the discourse structure of those assignments as a first step towards a later investigation of teacher-student approaches to competence in this area of reading.

Reading Purposes, or Aims and Objectives

Investigating the declared purposes for reading a text raises important questions touching as they do on central pedagogical concerns. Two kinds of purposes can be distinguished. First there are the general aims for reading a text with respect to its content. Secondly there are the specific objectives for reading a text and which relate to the particular kind of learning activity which the teacher has decided upon. Among these the first one would include reading in order to revise, review or reconsider a topic, reading as preparation for a new topic, etc.. As part of this second set of purposes are linked the various activities which students may be required to undertake e.g. answering questions, producing an extended piece of writing from a paragraph to an essay, discussing what they have read or undertaking some non-literary activity like drawing a picture, making a model, etc..

Detailed accounts of how reading tasks are approached in the classroom from all of these perspectives do not yet exist in the literature. The Lunzer and Gardner studies provide some information on the kinds of objectives teachers set though the confusion of objectives with the activities, or means to achieve them makes comparison with their findings somewhat difficult.

Of the objectives set it appears, not surprisingly perhaps, that preparing for a lesson and following up a lesson were the two most important though whether saying this gives us very much more insight into what is happening as far as reading assignments are concerned is not clear. To amplify on these aims the research to be presented in this paper also sought to find out if the reading task was in preparation for a new topic,

as an elaboration on class work, or simply a review of class work, or finally as providing an alternative view on a topic or problem.

In terms of the activities required of the students Lunzer and Gardner's studies reported that question answering and note making were the most frequently required.

Quite apart from noting the actual purposes as such it is important that some attempt be made to determine the intellectual demands which the assignments make on their readers. As in many studies, e.g. Gallagher (1965), Davis and Tinsley (1967), it has been found that teachers themselves tend to pose an apparently disproportionate number of low-level questions, or, using Barratt's term, literal questions. As for questions posed in texts across the curriculum Gibbons (ibid.) found that fifty per cent of the questions in those she examined were, again following Barratt, of a literal kind, thirty per cent were reorganisational, nineteen were inferential and one per cent evaluative.

If these findings are representative they indicate that whether teachers use their own questions or draw on those supplied in texts it is likely that most of them will demand lower-level cognition responses. The evidence of this paper's research will offer a somewhat different picture.

Teacher Assistance for Reading Assignments.

The most important focus of this paper is the teacher's role in guiding or assisting students to cope with their reading assignments. In this Durkin's study is seminal since she sought to discover through means of direct classroom observation what kind

of assistance students

/receive in order that they should comprehend what they read.

Her findings, if of general application, indicate that very little positive assistance is in fact provided. Less than one percent of the time of the twenty-four teachers observed was found to have been devoted to what Durkin termed 'comprehension instruction'.

Comprehension instruction is defined by Durkin as the teacher saying or doing "something to help children understand or work out the meaning of more than a single isolated word". In contrast to the absence of such instruction considerable time was observed being devoted to assessing knowledge of what had been read. Assessment occupied almost eighteen per cent of the time observed, the single largest factor in the teachers' use of their time. In the section of her study devoted to observing reading in social study classes no time was noted as being taken up by comprehension instruction. Yet here again a high proportion of time was allocated to assessing with, as the report notes "the vast majority of questions focussing on facts, many of which were trivial, some of which are no longer facts".

Lunzer and Gardner do not report quite so directly on the kind of guidance, or instruction provided by teachers in the schools they surveyed. Two sections of their report do allow, however, some inferences to be drawn as to what might have been provided.

The survey of reading in the classroom revealed that most of the sustained reading was student initiated and in the report is termed 'personal reading'. On average, eleven to twelve minutes per day were taken up with such reading. The report indicates, and most primary and junior school teachers would probably confirm it, that such reading develops from the practice of encouraging students to read their own choice of text in

between more formal classroom activities. This kind of reading is very frequently undertaken without specific guidance, or direction.

The second kind of classroom reading reported by Lunzer and Gardner is termed by them 'short-burst reading', i.e. reading not lasting more than half a minute on average. Such reading was done for the purpose of discovering facts and, apart from the questions designed to direct the readers' attention to these facts, no guidance which could be described as 'comprehension instruction' was reported.

Reading for homework was also surveyed by Lunzer and Gardner. Again, apart from setting tasks, the teachers surveyed did not usually discuss or give any guidance as to how these tasks might be undertaken. The inference to be drawn is that the teachers saw reading 'as reading, as reading, as reading'. Students were assumed to be able to read and therefore to have mastered the necessary study skills involved in reading for learning. No specific action was called for to develop these skills, or even to check that students were competent in them. In fact the question didn't even arise.

It is impossible to say how general this alleged absence of guidance might be. McGale (1981) in a case study of reading in the context of the transition from primary to secondary school found, as he puts it, secondary school teachers to be "in the dark" as far as developing competence in study skills is concerned. The teachers, he reports, recognised the importance of the study skills concept, but did not seem to accept responsibility for developing competence in this area.

Introduction

The issues identified and the research referred to above suggest that we are still at an early stage in discovering what actually happens in the classroom with respect to reading right across the curriculum. The further evidence presented here is essentially of a case study nature and is the product of a survey of teachers' use of extended reading assignments over a two to three week period of teaching three classes of first year secondary students. Extended reading assignments only were chosen because it was assumed that more conscious planning would have been part of the teachers' preparations in setting them. The choice of first year secondary students was made because this is normally the stage in their school careers when students have their initial experiences of the formal subject disciplines which are the basis to the secondary school curriculum. It is also as several studies have pointed out, e.g. McGale (ibid), a difficult transition period for students.

Obviously the findings of a limited survey can make no direct claims to be of general application. What justifies it being undertaken is the two-fold need to encourage structured investigation of reading in the classroom and discussion of findings in the light of more general studies and of teachers' own experiences.

Aim and Conduct of the Survey

The survey aimed to obtain information on a number of the issues identified in the earlier discussion. Teachers were asked to record the nature and purpose of the reading assignments set, their own estimations of how difficult they judged them to be in terms of readability, the kinds of activities set in association within these assignments and finally the kind of assistance which they provided their students in order to help them successfully complete these assignments. In addition information was sought on the teachers' overall view of the place of reading in their discipline and on the kinds of difficulties they believed their students experienced in undertaking reading assignments.

The survey was conducted by means of a written questionnaire supplemented by discussion with the teachers involved. The subject areas were English, Social Studies (Geography, History and Religious Studies), General Science and Mathematics. The survey produced information on 45 assignments distributed as follows, English 22, Social Studies 14, Mathematics and General Science 9.

Findings of the Survey

The first characteristic of the assignments to be examined was their alleged level of difficulty. Teachers had noted their own impressions of the levels of difficulty on a 5-point scale ranging from very difficult to very easy. The texts assigned were then assessed on the Flesch Readability Index and their reading age equivalent determined. Students' reading ages had been noted and these are also included in this first set of findings.

Table 1

Readability Levels of Texts Assigned

(Flesch Formula¹)

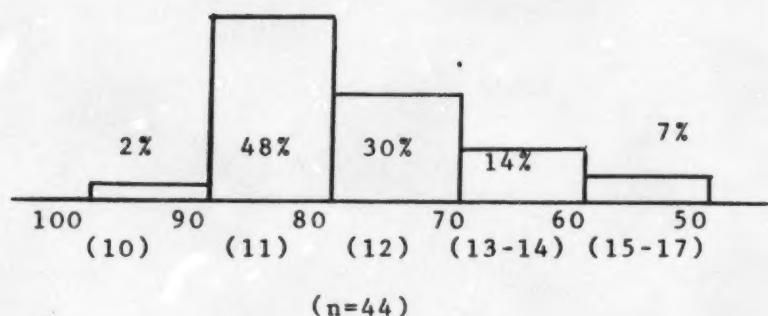
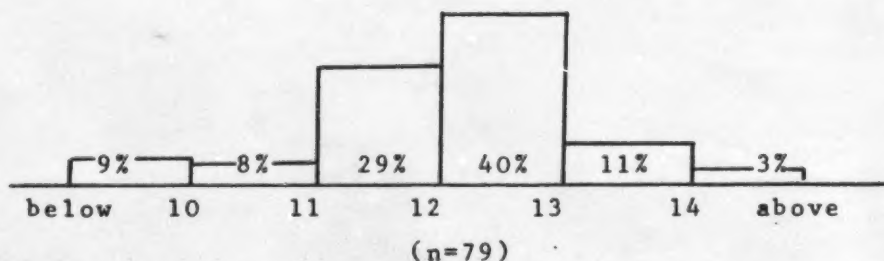


Table 2

Distribution of Pupils' Reading Ages

(Danials and Diack²)



¹'Flesch' scores range downwards from 100, which indicates a reading age equivalent of about 10, to 50 indicating a reading age equivalent to between 15-17. The formula was devised by R. Flesch in 1948 and is reported in 'A new readability yardstick' Journal of Applied Psychology, 32, 221-33.

²The Danials and Diack test of Reading Experience is available in Danials, J.C. and Diack, H. (1968), 'The Standard Reading Tests', Chatto and Windus.

Overall these results indicate a tendency to select more texts with reading age equivalents below the average for these pupils. Broken down into the three subject areas it is clear that it is mainly in the social studies area that the more difficult texts appear. Of the 10 texts with a reading age equivalent above 12, 7 were from social studies, 2 from maths/science and only 1 from English.

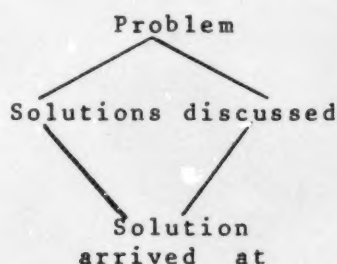
Taken in conjunction with these findings are the teachers' own estimates of the level of difficulty posed by these texts. Most of the texts were assessed as being of average difficulty. Only 5 (11%) texts were judged by the teachers to be either difficult or very difficult, 27 (61%) were judged to be of average ease/difficulty while 12 (27%) were judged as easy or very easy.

Discourse Structure

Two findings in this respect are selected for discussion later. These arose from a classification of all the texts, exclusive of those from mathematics and the English verse texts, according to the four-fold category system used by Meyer (ibid). This system suggests that expository prose-texts can be classified as to whether they are response, i.e. relating a solution to question; adversative, i.e. relating what did happen to what did not, or a favoured view to an opposing one; covariance, i.e. relating an antecedent condition to its consequent; and attribution relating a collection of attributes to an event or idea. Narrative texts are not included in this classification.

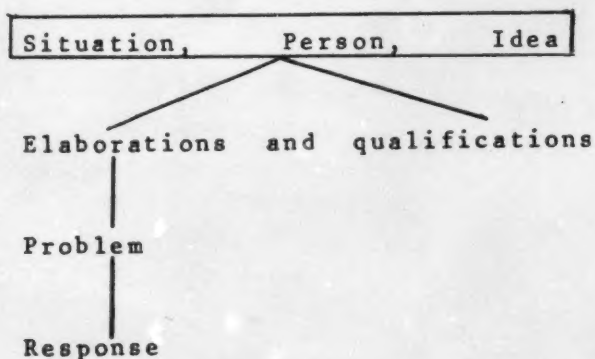
Of the 23 non-narrative or expository texts a clear-cut classification was only possible in the case of the science texts. These were effectively 'response' texts in Meyer's terms. A problem was stated and solutions proposed, ways of testing these solutions discussed and a solution arrived at. In structural terms these texts can be quite simply characterised with a diagram of the following kind:-

Fig. 1



The other expository texts (18) were essentially 'attributive' though a few contained sub-sections which were either 'narrative' or 'response'. In a history text, typically, a person's qualities or attributes would be described with some illustration of these by way of reference to an event or to a problem which he/she had to deal with. A general characterisation of such texts would be represented by the following diagram:-

Fig. 2



Purposes

In seeking the teachers' purposes for setting these assignments the aim was to relate reading to the ongoing work in the subjects concerned. Four purposes were listed to which the teachers were asked to respond and more than one purpose could be reported. The results are set out in Table 3.

Table 3

Purpose	Times	Reported
preparing a new topic	7%	(4)
elaborating on class work	38%	(22)
reviewing class work	28%	(16)
obtaining another view on a topic	28%	(16)

The purpose which dominated was that of elaborating on class-work, closely followed by reviewing class-work, i.e. using the text to return to the same content as had been already discussed, and in third place the use of texts to provide another view on a topic to that provided by the teacher. Texts were least used for the purpose of preparing a new topic.

Activities associated with assignments

Since it is a universal practice to check on students reading in some way or other and, or to expect some outcome it was decided to obtain information on what were described in the questionnaire as 'activities associated with the assignments'.

Four different kinds of general activities were listed and others could be included if the four did not suffice. The range of activities and their frequency are reported in Table 4.

Table 4

Associated Activities

ACTIVITY	Times	Reported
class test or examination	11%	(6)
accompanying questions to be answered	36%	(19)
extended writing, e.g. essay	25%	(13)
draw a picture, construct a model	21%	(11)
go somewhere		
Other: discussion	9%	(4)

Answering questions which accompany the text was the single most frequent activity set, followed by extended writing of some kind of non-literary activity, a class test of some kind and finally by discussion which was the only 'other activity' included under this heading.

Teacher Assistance

What kind of assistance do teachers give their students, was one of the major issues identified in the earlier discussion. In completing the survey teachers were asked to indicate which kinds of assistance, from a range of six possible forms, they provided in the case of each assignment. If none was given, this was also recorded. Table 5 summarizes the results.

Table 5

Forms of Teacher Assistance

Forms of Assistance	Times Reported	
difficult/specialist terms explained	31%	(19)
complex language structures explained	5%	(3)
aims of assignment explained	31%	(19)
helpful questions suggested	8%	(5)
additional sources suggested	4%	(3)
other forms of assistance:		
pre-reading discussion of topic	10%	(6)
no assistance given	10%	(6)

The explanation of difficult terms and of the aims of the assignment were the two most frequent forms of assistance given. Together, they account for just over 60 per cent of the total assistance. The 'other form' of assistance reported was pre-reading discussion of the topic, or part of the topic. In Mathematics this was discussed in the course of working out problems of a similar kind to those found in the students' assignments.

Reading Priorities and Reading Difficulties

Finally from the survey two further sets of findings emerge. First, from a list of general aims which could govern reading within any curriculum area the following is their degree of importance or priority, as determined by reference to the frequency with which the teachers gave each aim the same preference.

Table 6

Teachers' Degrees of Importance for Reading Aims

Very important	Important	Less important
- preparing for tests	- reviewing class work	- preparing for a new topic
- elaborating on class work	- widening interest and providing different views on topics	- providing background reading to written work

As to the difficulties teachers found, they most encountered in their students' reading, the following is the order of frequency which they reported.

Table 7

Teachers' Order of Frequency for Reading Difficulties

-
1. Lacking study skills
 2. Unwilling to read
 3. Texts uninteresting
 4. Lacking of basic reading skills
 5. Texts too difficult
-

Discussion

Readability

The readability of the texts examined has found, contrary to more general surveys, a marked tendency to choose texts of a level of readability below the average reading ability of students concerned. This was the case even for the science assignments, usually those with the highest readability measures. The few more difficult texts, i.e. Flesch score of

less than 70 were among the social studies assignments (5) rather than among either of the other two areas (3).

Teachers' estimates of the assignments which in 61 per cent (27) of the assignments claimed them to be neither difficult, nor easy were at least a slight over-estimate. Given the range of reading ability in each of the classes these results raise the question that the average to better students may not have been challenged as much as they could have been. Such a judgement, however, must ultimately rest on the weight one places on formal readability measures. The fact that such measures cannot assess conceptual difficulty, nor take account of such extraneous, but important factors as student interest in or need for the topic, renders the judgement even more tentative.

The suggestion from the readability measures that some of the material, especially in English was rather too easy does gain some weight, however, from the impression that several of the topics were rather childish for students at this stage. A preoccupation with family pets was one topic which required reading pieces of poetry more suited, in this writer's opinion, to primary school children of 8 to 9 years rather than first year secondary students.

Discourse Analysis

The analysis of discourse revealed an interesting contrast between texts which could be categorised, (using Mayer's (ibid.) scheme), as 'problem-response' and those which could be described as 'attributive'. The former were quite explicit not only as to the problems with which they were dealing, but also as to how they should be discussed and resolved. This might be regarded as only typical and indeed what should be expected of effective science texts, this being the area where such texts were found. On the face of things one might be justified in saying that so far as these texts were concerned they would appear to have met some of the important criteria by which they could be judged.

The non-narrative, and perhaps the narrative social studies and English texts as well, could be said to be at once, both more and less problematic because of the structure and nature of their discourse than those generally found in the science area. Less problematic, because they offer straight-forward descriptions and accounts of persons, events and ideas. More problematic, because they do not in themselves impose an aim or a procedure for reading them. While it is the case that teachers in the survey suggest a general aim for reading such texts the absence of clear guidelines as to how students may set about this reading could have the effect of them attending to unnecessary detail and of failing to extract the essence of the message. Is this characteristic of text structure being inadequately attended to and, given the amount of reading undertaken with such texts in school, is it this inadequacy which has contributed to the failure pin-pointed in the U.S. National Assessment finding?

Purposes

It is not surprising to find that reading assignments are mostly intended as opportunities for elaborating on or reviewing class work. Between them, both of these purposes accounted for 64 per cent of the purposes for which the assignments surveyed were set, reflecting also the high degree of importance placed by the teachers on elaboration and reviewing generally (Table 6). A further 7 per cent of the purposes was accounted for by reading as preparation for a new topic, again not a surprising finding given the short period covered by the survey, though it may also reflect the lower importance placed on this purpose (Table 6). The 28 per cent of purposes accounted for by reading to provide another view of a topic, expressed most by the social studies teachers is an interesting finding and one worthy of further examination. It does not suggest that by another view the teachers were necessarily providing a contradictory one, but rather that they saw themselves as presenting one view and the authors of the texts to be read another. The finding does at least indicate that the teachers made this distinction and did not see themselves as merely reiterating what their texts stated. This is further borne out by the fact that providing another view was rated quite an important reading aim (Table 6).

It is difficult to find other evidence with which to compare these findings. Knox (1982) however, also found that students understood reading purposes to be mainly to elaborate on the topics already introduced with review and revision also important purposes. Obtaining another view of a topic was, however, hardly perceived at all by the students Knox questioned as being amongst the purposes served.

Activities associated with assignments

Lunzer and Gardiner, and Knox all found that answering questions was the activity most frequently associated with reading assignments. The present study confirms these findings and if the 11 per cent of activities covered by class test or examination is also included to generalize this category then nearly 50 per cent of the activities are accounted for by question answering. It is noteworthy that teachers rated testing as very important amongst the general aims governing the setting of reading assignments (Table 6). So this is not a surprising finding, nor perhaps is that of 25 per cent of the activities being devoted to extended writing. These findings overall indicate a balance which would appear appropriate except in the case of discussion which accounts for only 9 per cent of the activities. Further observation may, however, reveal that discussion is more frequently included but perhaps not seen as an intentional purpose.

An important point to note with respect to the written questions accompanying the assignments is that in terms of Barratt's taxonomy they were distributed as follows: 29 per cent literal, 32 per cent reorganizational, 20 per cent inferential, 4 per cent evaluative, 4 per cent appreciative, 10 per cent requiring extra-textual information making them non-classifiable. This suggests a much more balanced distribution of questions than has been discovered in the studies referred to above. How balanced would require further investigation.

Teacher Assistance

The findings in this section are ultimately those of most interest in terms of the pedagogical implications of the study, though clear implications must await more detailed analysis of these and other findings which would interrelate such factors as purpose, readability and teacher assistance. Such assistance is

obviously such a dependent variable that it is inappropriate to treat it entirely in isolation as this study has done.

Knox's students reported that more assistance was given during or after reading assignments than before. Most assistance given before was reported as being to do with explaining the aims of the assignments, in particular the activities which the students were expected to complete. In doing this teachers may unconsciously be providing guidelines for reading the texts, though precise information must await further study. But with regard to the development of study skills in general, it is interesting to recall what McGale (ibid) found about teachers of first year secondary students being 'in the dark' as far as how they might set about such a task.

The evidence about teacher assistance for reading assignments, therefore, although tentative seems to be pinpointing an important need which reading consultants have attempted to meet for some considerable time with their attention to study skills but without a completely comforting degree of success.

Conclusions

It was stated at the outset that this study was a modest one in terms of its scope and purpose. The findings in some respects correspond to those of more general studies. There are also differences, notably that teachers were tending to use texts of a level of difficulty below the average reading ability of their students. This may be a reflection of a general situation in schools in Northern Ireland since many of the textbooks are in widespread use at this level. Only texts in the social studies area, notably in history, were at the higher levels of readability, a finding consistent with those in other studies.

Finally, the study's findings regarding teacher assistance may be the most important because they point to the kinds of learning skills teachers could be said to be developing, or indeed not developing in their students. The evidence here indicates the need for a deeper examination of the situation perhaps involving closer self-monitoring on the parts of teachers themselves. Reports based on such an examination would make a truly insightful contribution to the study of reading across the curriculum.

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